

### REMARKS

Claims 1, 3-16 and 18-25 are pending in the application. Reconsideration and allowance of the application including claims 1, 3-16 and 18-25 are respectfully requested.

#### Prior art rejections

Claims 1, 3-16 and 18-22 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent number 6,421,675 B1 to Ryan, et al. ("Ryan"). Reconsideration of this rejection is respectfully requested.

#### Claims 1 and 3-14

Claim 1 includes limitations of searching an inverted index of data obtained using search listings of a pay for placement database and searching meta-information obtained by analyzing search listings of the pay for performance database. It is respectfully submitted that these limitations are missing from and are not suggested by Ryan.

The final office action asserts (paragraph 6 on page 10) that

Ryan teaches the related search database at FIG. 4 comprising "keyword table" (164) and "Keyword URL link table" (172), both of them are "relational database table" (col. 11, lines 13-14), and are searched in order to provide the search listing as claimed. As seen at table 3 and 10, these tables are indexed using inverted indexing method based on keywords (i.e., "a single index entry is used to reference many database records," as defined in applicant's specification page 12, lines 14-17.

This assertion is respectfully traversed. This assertion is based on an incorrect understanding of the term "inverted index." The final office action correctly quotes a part of the definition for inverted index from the specification at page 12, lines 14-17. That definition is, for one embodiment

In an inverted index, a single index entry is used to reference many database records. Searching for multiple matches per index entry is generally faster when using inverted indexes, since each index entry may reference many database records. *The inverted index lists the words which can be searched in, for example, alphabetical order and accompanying each word are pointers which*

*identify the particular documents which contain the word as well as the locations within each document at which the word occurs. To perform a search, instead of searching through the documents in word order, the computer locates the pointers for the particular words identified in a search query and processes them. (emphasis added)*

A further conventional definition and example of the term "inverted index" is available from an on-line source:

### **inverted index**

(data structure)

**Definition:** An index into a set of texts of the words in the texts. The index is accessed by some search method. Each index entry gives the word and a list of texts, possibly with locations within the text, where the word occurs....

*Note: Suppose we want to search the texts "i love you," "god is love," "love is blind," and "blind justice." (The words of the text are all lower case for simplicity.) If we index by (text, character within the text), the index with location in text is:*

blind	(3, 8) ; (4, 0)
god	(2, 0)
i	(1, 0)
is	(2, 4) ; (3, 5)
justice	(4, 6)
love	(1, 2) ; (2, 7) ; (3, 0)
you	(1, 7)

*The word "blind" is in document 3 ("love is blind") starting at character 8, so has an entry (3, 8). To find, for instance, documents with both "is" and "love," first look up the words in the index, then find the intersection of the texts in each list. In this case, documents 2 and 3 have both words. We can quickly find documents where the words appear close to each other by comparing the character within the text.*

This definition is provided by the U.S. government's National Institute of Science and Technology at <http://www.nist.gov/dads/HTML/invertedIndex.html>. Thus, an inverted index includes a word (or text) and associated pointers to other records in a database.

In contrast to the word (or text) and associated pointers of this definition of the term inverted index as used in claim 1, the disclosure of Ryan fails to show, describe or even suggest "searching an inverted index of data obtained using the plurality of search listings of the pay for placement database" as required by claim 1. Even Ryan's Tables 3 and 10 only show links between web pages and key words (Table 3) or a count of key word references from other

keyword (Table 10). These are not inverted indexes as that term is used in the present application.

Further with respect to claim 1, is respectfully submitted that Ryan fails to disclose “identifying related search listings relevant to the search request, including... searching meta-information obtained by analyzing the plurality of search listings of the pay for placement database...” as recited by claim 1.

The final office action makes reference to a portion of Ryan at column 31 which describes a keyword content table used to describe information and relationships in the search listing. However, this portion of the Ryan disclosure is in no way related to suggesting keywords to a user, such as Ryan discloses at column 27, starting at line 54. The referenced disclosure at Ryan column 31 actually relates to “a system for tracking changing content, and allowing for content providers to dynamically select when their content will be displayed,” Ryan column 30, lines 51-55. Although the overall disclosure of Ryan makes disjointed references that may be interpreted as bits and pieces of claim 1, Ryan fails to disclose the limitation of claim 1 quoted above. Ryan moreover does not disclose the invention defined by claim 1, when considered as a whole.

A rejection under 35 U.S.C. § 102 may not be maintained if the cited reference does not include all the limitations of the rejected claims. Claim 1 recites limitations nowhere disclosed, suggested or rendered obvious by Ryan. Accordingly, this reference can not anticipate claim 1, which is therefore allowable. Claims 3-14 are dependent from claim 1 and add further limitations thereto and are allowable for the same reasons. Withdrawal of the 35 U.S.C. § 102(e) rejection of claims 1 and 3-14 and an indication of the allowance of these claims are respectfully requested.

#### Claims 15, 16, 18 and 19

With respect to claims 15-19, reconsideration of the rejection of these claims is respectfully requested. In the final office action, it is asserted that Ryan teaches a related search database. However, it is respectfully submitted that the office action is confusing the claimed “pay for placement database” and the “related search database” of claim 15.

In one embodiment of the present invention, “a pay for [placement] database include[es] a plurality of search listings. The database 104 contains and [sic] ordered collection of search listing records used to generate search results in response to user queries. Each search listing record contains the URL of an associated web page or document, a title, descriptive text and a bid amount.” Page 7, lines 7-12 of the present application.

In addition to the pay for placement database (referred to as the pay for performance database in the application as filed, and subsequently amended), claim 15 also requires a related searches database. The features noted in the final office action such as “keywords” (70) and description (68) are actually part of a database such as the claimed pay for placement database, in which “keywords” correspond to search terms of the search listings in the pay for performance database and the “description” corresponds to the descriptive text of the search listings. Ryan even mentions a “URL 66” (column 5, line 35) and “bids 76” (column 5, line 49), corresponding to the “URL of an associated web page or document” and the “bid amount,” respectively of the embodiment of a pay for placement database described at page 7, lines 7-12 of the present application.

However, Ryan fails to disclose a related search database as recited by claim 15. The claim specifies two databases, a pay for placement database and a related search database. Ryan fails to disclose two databases corresponding to the two recited in claim 15. The missing disclosure of Ryan is implicit in the rejection as stated in the final office action. The pay for placement database is said to be disclosed at column 5, lines 47-65 and the related search database at column 5, lines 59-64, *within the same disclosure as was said to define the pay for placement database*. There are not two corresponding databases disclosed in Ryan, so Ryan can not anticipate claim 15. This claim is therefore allowable. Claims 16 and 18-19 are dependent from claim 15 and are allowable for the same reasons. Withdrawal of the 35 U.S.C. § 102(e) rejection of claims 15, 16 and 18-19 is respectfully requested.

#### Claims 20-22

With respect to claims 20-22, the rejection of these claims suffers from the same shortcomings as the rejection of claims 15, 16, 18 and 19 discussed above. Independent claim 20 recites “a related search database” and “a pay for placement database.” As noted, Ryan fails to

disclose these two databases. Further, the rejection of these claims suffers from shortcomings similar to those described above in connection with the rejection of claim 1. The disclosure of Ryan fails to show, describe or even suggest "creating an inverted index for the related search database entries" as required by claim 20. Ryan does not teach inverted indexes as that term is used in the present application, as explained in greater detail above.

Accordingly, since Ryan fails to disclose all the limitations of independent claim 20, Ryan can not anticipate this claim. Claim 20 is therefore allowable. Claims 21 and 22 are dependent from claim 20 and are allowable for the same reasons. Withdrawal of the 35 U.S.C. § 102(e) rejection of claims 20-23 is respectfully requested.

#### Claims 23-25

Claims 23-25 stand rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. patent number 5,999,929 to Goodman ("Goodman"). Claim 23 was amended to recite

determining if a URL on the list is similar to another URL on the list;  
if the URL is not similar to another URL on the list, adding the URL to a list of URLs to  
be crawled;

Thus, amended claim 23 includes two primary, alternative prongs. In the first prong, if there is not a similar URL, the selected URL is added to a list. In the alternative, in the second prong, if there is a similar URL, potentially duplicate URLs are crawled. This two-prong operation is not shown, described or suggested by Goodman.

The final office action asserts that Goodman discloses these limitations at column 5, lines 10-20 where it is recited "the Web page analyzer 15 analyzes the retrieved Web pages to identify duplicates and, when duplicates are located, will consolidate duplicate URLs in the class assignment." However, this corresponds only to the second prong described above. Goodman's "duplicate" URL would be treated as a "similar URL." Goodman does not disclose how URLs that are not similar are treated. Claim 23 thus recites limitations absent from Goodman.

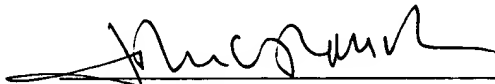
Since a rejection may not be maintained under 35 U.S.C. § 102 if limitations of the claim are absent from the reference, the rejection of claim 23 may not be maintained. Accordingly, claim 23 is allowable over the Goodman reference. Claims 24 and 25 are dependent from claim

Application no. 09/575,894  
Amendment dated: May 6, 2004  
Reply to office action dated: February 6, 2004

23 and add further limitations thereto and are allowable for the same reasons. Withdrawal of the 35 U.S.C. § 102(a) rejection of claims 23-25 is therefore respectfully requested.

With this response, the application is believed to be in condition for allowance. Should the examiner deem a telephone conference to be of assistance in advancing the application to allowance, the examiner is invited to call the undersigned attorney at the telephone number below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John G. Rauch", is written over a horizontal line.

John G. Rauch  
Registration No. 37,218  
Attorney for Applicant

May 6, 2004  
BRINKS HOFER GILSON & LIONE  
P.O. BOX 10395  
CHICAGO, ILLINOIS 60610  
(312) 321-4200